

# **Class I Disposal Facility Inspector Guidance Manual 2016**



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## Purpose

The purpose of this training and guidance manual is to provide Division of Solid Waste Management (DSWM) inspectors best practice guidance for noting areas of concern, violations (V1), and significant violations (V2) for Tennessee Class I landfills. In this document, violations are cross-referenced to the DSWM rule citations from *0400-11-01-.04 SPECIFIC REQUIREMENTS FOR CLASS I, II, III, AND IV DISPOSAL FACILITIES*<sup>1</sup>.

This document is organized by violations listed in order as found on the inspection form. Each violation is addressed first by giving the rule citation requirements as well as “green box” guidance following.

General inspector guidance is provided in green text boxes for each violation number listed on the disposal inspection checklist. This guidance is for training and reference purposes for DSWM staff. The “green box” guidance in this document has been developed with the recognition that there are many factors to consider for any issue of concern or violation and can vary greatly from one landfill facility to another. As such, the “green box” guidance in this document is meant as relative rules of thumb developed to help improve consistency for the DSWM inspection program state-wide. This guidance does not supersede the regulations or individual permits.

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<sup>1</sup> Authority: T.C.A. § 68-211-101 et seq., 68-211-701 et seq., 68-211-801 et seq., 11-13-111, Chapter 169 of the Private Acts of 1990, and 4-5-201 et seq. Administrative History; Original rule filed June 19, 2012; effective September 17, 2012. Amendments filed December 18, 2012; effective March 18, 2013

# Explanations and General Guidance

## Area of Concern:

An area of concern is an area that needs to be watched for problems. These areas have the potential to become violations if they should elevate to the V1 violation criteria level. Areas of concern should typically be noted for issues that are not direct violations of the rule citations, but show signs of becoming direct violations if some type of action isn't undertaken. However, notation of an area of concern should not be used as a pass or allowance for time to fix a first observed V1 violation.

## Violations (V1) and Significant Violations (V2):

This manual provides guidance for inspectors for distinguishing between areas of concern, violations (V1), and significant violations (V2). However, this guidance is primarily focused towards differentiating between areas of concern and violations (V1). Generally, for all violations listed in this manual, a significant violation (V2) results from non-corrective action after a V1 violation is given. There are circumstances where significant violations (V2) can be cited upon initial inspection, however. Guidance is given for those circumstances in this document as well.

A V1 violation may only be issued if there is no present or imminent risk to public health or the environment. If a V1 is cited on a regular monthly inspection, then a follow-up inspection **may** be needed, which requires a compliance date (noted on the inspection form). If a follow-up inspection is not deemed necessary, however, the prior V1 issue should be addressed by the next monthly inspection. If V1 violation has not been corrected at the follow-up or next monthly inspection (up to a maximum of 45 days), a V2 violation may be cited. **Corrective action for a V2 violation should begin "immediately"**. The establishment of a **compliance date** does not authorize a facility to remain out of compliance until that date. It is the responsibility of a facility to always be in compliance with the permit and applicable regulations. A compliance date is a notification to the facility of the earliest date that DSWM staff is planning to conduct a follow-up inspection. In situations, such as additional citizen's complaints, DSWM staff may return to the facility prior to the compliance date.

The DSWM Environmental Field Office Manager can allow more time to defer a V2 violation if extraordinary circumstances exist (e.g., the requirement of dry weather for repair). The facility must request an extension and provide a

compliance schedule in writing to allow more time to correct the V1 violation. Email correspondence is appropriate for this procedure.

**General violation guidance:**

A comment or written observation can be noted on the inspection form. These comments or written observations are typically areas of concern that may indicate a ***potential V1 violation***. However, V1 violations are typically considered problems that ***need to be corrected*** in an appropriate time frame. V2 violations can typically be considered problems that ***should have already been corrected or problems that present an imminent risk to public health or the environment***.

**Pre-Inspection:**

Staff members shall prepare a Permit Specific Summary Sheet for each landfill that includes the following:

- A. Any FACILITY-SPECIFIC PERMIT CONDITIONS that address the daily operations of the landfill;
- B. The following from the Operational Manual:
  - 1. Access Control structures and procedures;
  - 2. Summary of Sequence of Operations;
  - 3. Any details of the Covering of Waste procedures (Use of tarp allowed);
  - 4. List of Equipment;
  - 5. Any specific Litter Control Procedures;
  - 6. Leachate Holding Structures;
  - 7. Any specific Dust Control Procedures;
  - 8. Any specific Fire Safety Equipment and Procedures;
  - 9. Level in each leachate sump that corresponds to one foot of head over the liner; and,
  - 10. Any routine maintenance schedules for the leachate collection system.
  - 11. Check previous inspection report to determine if there are reoccurring problems or violation.
  - 12. Check to see if there have been complaints concerning the facility.
  - 13. Check for information on any current or new special wastes.
  - 14. Check records for random inspections, volume of waste received, asbestos received, gas monitoring records, groundwater monitoring record and certifications for scales, operators and personnel training.

Permit Specific Summary Sheets shall be updated when the permit is modified.

**8010****Inadequate vector control****Citation Reference:** 0400-11-01-.04(2)(a)1

General Facility Standards – Overall Performance Standard - The facility must be located, designed, constructed, operated, maintained, closed, and cared for after closure in such a manner as to minimize to the extent practicable the propagation, harborage, or attraction of birds and flies, rodents, or other disease vectors.

**Inspector Guidance (8010)**

Control of disease vectors is one of the main goals of the proper operation of a landfill. A relatively small number of flies or a rat that came in with a load should not normally be considered a violation. Neither should a few birds that occasionally show up at the working face (or seagulls during seagull “season”). Potential concerns for vector control can be included in the comments. **However, when the actual number of vectors is large, the evidence (rat burrows, maggots) is significant, or an indication that breeding or increasing numbers is observable, this violation (V1) should be cited.**

**8020****Access not limited to operating hours****Citation Reference:** 0400-11-01-.04(2)(a)4

General Facility Standards – Overall Performance Standard - The facility must be located, designed, constructed, operated, maintained, closed, and cared for after closure in such a manner as to minimize to the extent practicable the exposure of the public to potential health and safety hazards through uncontrolled or unauthorized public access.

**Inspector Guidance (8020)**

If the public had access to the landfill when it was not in operation, scavenging, burning, and indiscriminate dumping would be possible. Resources would then have to be diverted from normal operations to restore acceptable conditions. **For this reason, public access should be limited to clearly posted hours that are consistent with facility's permit—if not, a V1 violation should be cited.** This violation concerns public access and not facility operation.

**Inadequate artificial or natural barrier****Citation Reference:** 0400-11-01-.04(2)(b)1

General Facility Standards – Control of Access and Use - The facility must have an artificial or natural barrier which completely surrounds the active portion of the facility and must have a means to control entry, at all times, through the gate or other entrances to the active portion of the facility.

**Inspector Guidance (8030)**

The required barrier is intended to prohibit vehicular traffic (or easy foot traffic) from entering the active portion of the landfill when the site is not in operation. "Natural barriers" are usually described on plans or addressed in permit. "Artificial barriers" includes gates, cables, fencing, or other artificial means of *controlling* access (and are also usually described on plans or addressed in permit). A violation can be cited if evidence of access (e.g., ATV or 4x4 tracks, etc.) to controlled portions of the landfill exists; there should be clear indications of non-controlled access before a violation is cited. ***If a breach in barrier by more natural means (e.g., tree fallen on fence, etc.) is observed, a written comment can be made and a chance given to avoid a V1 violation. If nothing is corrected upon follow-up or next inspection, a violation should be cited.***

**Inadequate information signs****Citation Reference:** 0400-11-01-.04(2)(b)2

General Facility Standards – Control of Access and Use - If open to the public, the facility must have clearly visible and legible signs at the points of public access which indicate the hours of operation, the types of waste materials that either will or will not be accepted, emergency telephone numbers, schedule of charges (if applicable), and any other necessary information.

**Inspector Guidance (8040)**

Signage at Class I landfills is usually described in the facility's permit. The regulatory requirement of this signage requires, at the very least, visible and legible signs at points of public access that describes hours of operation, types of waste materials that will or won't be accepted, emergency numbers, schedule of charges (if applicable), and any other necessary information. Questions regarding this violation should typically default to what is described in their permit. Also, as a reference, please refer to TCA 68-211-703(h) for more guidance on signage. However, it is possible that extreme weather events may occur (e.g. flooding or severe snow/ice storms) and consideration of such events should be given. The facility operator has the ability to adjust and modify daily operating hours in inclement weather conditions to ensure customer and employee safety at the facility.



**8050**

**Unsatisfactory access road(s)/parking area(s)**

**Citation Reference:** 0400-11-01-.04(2)(b)3

General Facility Standards – Control of Access and Use - If the facility is open to the public, or if it is otherwise necessary for proper operation, roads within the facility, easements, and parking areas shall be designed, constructed, and maintained so as to be accessible in all weather conditions. Traffic control signs shall be provided as necessary to promote an orderly traffic pattern to and from the solid waste discharge area to maintain efficient operating conditions.

**Inspector Guidance (8050)**

If operating portions of the landfill are not accessible and/or are potentially dangerous to access due to poor road conditions, a V1 violation should be cited. A non-corrected V1 violation can trigger a significant V2 violation upon follow-up. This regulatory language states that roads must be maintained so as to be accessible in all weather conditions. Weather can potentially affect normal operations and impede regular operation, however, roads should be maintained in order to not drastically slow or stop operations.

**8060**

**Certified personnel not present during operating hours**

**Citation Reference:** 0400-11-01-.04(2)(b)5

General Facility Standards – Control of Access and Use - Class I landfill facilities shall have a certified operator or attendant on site during the hours of operation who is trained and certified as provided at Rule 400-01-07-.12.

**Inspector Guidance (8060)**

Certified operators of Class I landfills must have successfully completed a certification training course recognized by the DSWM. Typically, landfill operators take the division Landfill Operators Certification Training Program. However, other certifications are recognized by the DSWM. This rule requires a certified operator and/or attendant to be present and on site during the hours of **operation**. Proper documentation must be available at the time of inspection for the certified operator(s) at the facility. If not provided, a V1 can be cited.

**8070**

### Unapproved salvaging of waste

**Citation Reference:** 0400-11-01-.04(2)(b)6

General Facility Standards – Control of Access and Use - There must be no scavenging at the facility. Any salvaging or recycling operations must be conducted at safe, designated areas (not the working face) and times, and in a sanitary manner.

#### Inspector Guidance (8070)

An important distinction for this violation is the difference between approved salvaging/recycling operations (conducted by landfill personnel usually in accordance with an approved plan) for the separation of reusable materials and scavenging from the public. Scavenging is prohibited; the landfill should be actively prohibiting this practice.

**8080**

### Evidence of open burning

**Citation Reference:** 0400-11-01-.04(2)(c)1

Fire Safety - Except as may be specifically authorized by the Department:

- (i) The operator must not permit or engage in open burning of solid wastes at the facility. Any open burning that does occur must be immediately extinguished.
- (ii) The operator must not allow solid wastes which are burning or smoldering to be deposited into the active portion of the facility. Any such wastes that are received must be deposited at a location safely removed from the active portion and extinguished before being deposited into the active portion.

#### Inspector Guidance (8080)

As the rule describes above, no burning of waste must occur at the working face of the landfill. If burning is occurring at the working face, a V2 violation should be cited. Each permitted facility should have a fire control plan inside the operation manual.

**8090****Inadequate fire protection****Citation Reference:** 0400-11-01-.04(2)(c)2

Fire Safety - The facility must have, on-site and continuously available, properly maintained fire suppression equipment in sufficient quantities to control accidental surface fires that may occur, or arrangements must be made with the local fire protection agency to provide immediate fire-fighting services when needed. Additional earth moving equipment shall be brought to the facility as necessary to help suppress an underground fire.

**Inspector Guidance (8090)**

This violation is typically permit-specific. In the permit, the operations manual should describe whether the facility is covered by a fire department or if the facility will use on-site fire suppressant equipment. Whatever the case, fire suppression equipment should be consistent with the permit conditions.

**8110****Unsatisfactory litter control****Citation Reference:** 0400-11-01-.04(2)(d)

Litter Control - A facility must be operated and maintained in a manner to minimize litter. Fencing, diking and/or other practices shall be provided as necessary to confine solid wastes subject to dispersal. All litter must be collected for disposal in a timely manner.

**Inspector Guidance (8110)**

Class I landfills should be active in addressing litter. Permits should address a litter control in detail. The primary concern for this violation is whether litter is being addressed in a “timely manner” as stated by the rule. Windy conditions and presence of an active litter pickup crew should be considered in determining if a violation will be cited. If litter has been observed for a long period of time (e.g., as evidenced in comparable pictures), then a V1 violation should be issued.

Intermediate cover should not have “**flagging**” –areas where waste is showing in various places in the cover dirt. “**Flagging**” should be limited to the immediate working face and in the initial cover area only. “**Flagging**” or excessive waste showing in intermediate cover requires a V1 violation.

**8120****Inadequate employee facilities****Citation Reference:** 0400-11-01-.04(2)(e)

Personnel Services - At Class I disposal facilities, and at Class II, Class III and Class IV disposal facilities as may be specified in the permits, there must be provided:

1. A building or other shelter which is accessible to facility personnel and which has adequate screening, heating facilities, and lighting;
2. Safe drinking water; and
3. Sanitary hand-washing and toilet facilities.

**Inspector Guidance (8120)**

These conditions should be covered in the permit and should be described as in the rule above. Bottle water and portable toilets are acceptable for satisfying this requirement. If those conditions are not met, a V1 violation should be cited. If not corrected by a follow-up date or next inspection, a significant V2 violation can be cited.

**8130****No communication devices****Citation Reference:** 0400-11-01-.04(2)(f)

Communications - The facility must have operating and effective communications devices (e.g., telephone, 2-way radio) capable of summoning emergency assistance on-site and available to facility personnel at all times the facility is in operation.

**Inspector Guidance (8130)**

Reasonable and effective communication (facility provided) equipment (e.g., radios, cellular phones, etc.) should be available to landfill personnel to summon emergency assistance. If those conditions are not met, a V1 violation should be cited. If not corrected by a follow-up date or next inspection, a significant V2 violation can be cited.

**8140****Inadequate operating equipment****Citation Reference:** 0400-11-01-.04(2)(g)

Operating Equipment - At Class I disposal facilities, and at Class II, Class III and Class IV disposal facilities unless the Commissioner deems some other arrangement as adequate for proper facility operation, there must be maintained on-site operating equipment capable of spreading and properly compacting the volume of solid wastes received, and capable of handling the earthwork required. Back-up equipment must be available within 24 hours of primary equipment breakdown.

**Inspector Guidance (8140)**

If equipment failure or unavailability of necessary equipment impedes the normal operation and/or daily cover requirements then a V1 should be given. This violation will typically accompany another violation(s). If equipment failure/unavailability is causing another violation then this violation should also be cited.

**8150****Unavailability of backup equipment****Citation Reference:** 0400-11-01-.04(2)(g)

Operating Equipment - At Class I disposal facilities, and at Class II, Class III and Class IV disposal facilities unless the Commissioner deems some other arrangement as adequate for proper facility operation, there must be maintained on-site operating equipment capable of spreading and properly compacting the volume of solid wastes received, and capable of handling the earthwork required. Back-up equipment must be available within 24 hours of primary equipment breakdown.

**Inspector Guidance (8150)**

As specified in the facility's permit, back-up equipment must be available within 24 hours of primary equipment breakdown. The permit conditions could allow a contract service or secondary off-site equipment to be designated. It would be cited as a V1 violation if it is determined other violations can be traced back to lack of backup equipment.

**8160**

### Unavailability of cover material

**Citation Reference:** 0400-11-01-.04(2)(h)

Availability of Cover Material - Cover material sufficient to meet the initial and intermediate cover requirements of this rule must be available at the facility. If such material must be hauled in from off-site, at least a 30-day supply shall be maintained on-site at all times.

#### Inspector Guidance (8160)

Cover should be available on-site to meet initial and intermediate requirements. The amount available for use at the site (soil borrow/storage areas) is usually addressed in the permit. If such material must be hauled in from off-site, at least a 30-day supply shall be maintained on-site at all times. Alternative daily cover (ADC) does count in the 30 day supply requirement.

**8170**

### Inadequate maintenance of run-on/run-off system(s)

**Citation Reference:** 0400-11-01-.04(2)(i)1-5

#### *Run-on, Run-off, and Erosion Control*

1. The operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the facility for all flow up to and including peak discharge from a 24-hour, 25-year storm.
2. The operator must design, construct, operate, and maintain a run-off management system to collect and control at least the peak flow volume resulting from a 24-hour, 25-year storm.
3. Holding facilities (e.g., sediment basins) associated with run-on and run-off control systems must be designed to detain at least the water volume resulting from a 24-hour, 25-year storm and to divert through emergency spillways at least the peak flow resulting from a 24-hour, 100-year storm.
4. Collection and holding facilities associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.
5. Run-on and run-off must be managed separately from leachate unless otherwise approved by the Commissioner.

**Citation Reference:** 0400-11-01-.04(8)(c)4(i)

***Closure and Post-Closure Standards - Closure Requirements***

The final surface of the disposal facility or disposal facility parcel shall be graded and/or provided with drainage facilities in a manner that minimizes precipitation run-on from adjacent areas onto the disposal facility or disposal facility parcel.

The final surface of the disposal facility or disposal facility parcel shall be graded and/or provided with drainage facilities in a manner that provides a surface drainage system which is consistent with the surrounding area and in no way significantly adversely affects proper drainage from these adjacent lands.

**Inspector Guidance (8170)**

The performance standards should be adhering to permit plans. This violation will usually be coupled with 8180 regarding erosion control. The primary question for consideration of this violation is: Is improper maintenance leading to a run-on or run-off problem? If so, it is a V1 violation. With collaboration of the DSWM permit-writer/engineer, a determination can be made on how to mitigate the cited run-on/run-off issue. This violation is for improper maintenance of a 24-hour, 25-year storm designed run-on/run-off system as designed in the permit. If water exits the site outside of a DSWM permit approved system a V1 should be cited. For issues involving temporary run-on/run-off controls that are not designed for a 24-hour, 25-year storm, an area of concern can be noted. **Sometimes this should be obvious. If a check dam is blown out or a ditch filled with sediment then not a lot of consultation should be needed.**

**Violation Number: 8180**

**8180**

**Inadequate erosion control**

**Citation Reference:** 0400-11-01-.04(2)(i)6

***Run-on, Run-off, and Erosion Control*** - The operator must take other erosion control measures (e.g., temporary mulching or seeding, silt barriers) as necessary to control erosion of the site.

**Citation Reference:** 0400-11-01-.04(8)(c)4(ii)

***Closure and Post-Closure Standards - Closure Requirements*** - The final surface of the disposal facility or disposal facility parcel shall be graded and/or provided with drainage facilities in a manner that minimizes erosion of cover material (e.g., no steep slopes).

**Citation Reference:** 0400-11-01-.04(8)(c)5

**Closure and Post-Closure Standards** - Closure Requirements - In order to minimize soil erosion, as soon as practicable after final grading, the operator shall take steps as necessary to establish a protective vegetative cover of acceptable grasses over disturbed areas of the site. These steps shall include seeding, mulching, and any necessary fertilization at a minimum, and may include additional activities such as sodding of steeper slopes and drainage ways if such are necessary.

### Inspector Guidance (8180)

The facility must take permit-specified action for minimizing erosion. Erosion on side slopes should be evaluated. Minor erosion rills occurring on recently completed slopes where grass has yet to be established may not be a violation as long as Best Management Practices (BMPs) are being utilized to minimize and correct the erosion. When BMPs are not being consistently implemented and there are obvious signs of erosion (such as hard channelizing or uncovering of waste) are present, **a V1 violation should be issued**. If a discharge causing an objectionable contrast to receiving waters or visible loss of sediment from a site is observed, the Division of Water Resources (DWR) should also be notified (as described in MOA guidance, [PN084](#)). More clarification on erosion and sediment control practices will be found in a future developed Guidance for Controlling Erosion at Operational Areas of a Landfill.

**Violation Number: 8190**

**8190**

### Inadequate dust control

**Citation Reference:** 0400-11-01-.04(2)(j)

**Dust Control** - The operator must take dust control measures as necessary to prevent dust from creating a nuisance or safety hazard to adjacent landowners or to persons engaged in supervising, operating, and using the site. The use of any dust suppressants (other than water) must be approved in writing beforehand by the Department.

### Inspector Guidance (8190)

Class I facilities should be taking measures to control dust in some way. The facility should be able to show effort in adhering to their specific permit conditions regarding dust control. In order to cite a violation, dust must be causing a safety hazard to the public, personnel on site or adjacent property owners. If the source of the dust is from a special waste, the facility must adhere to the special handling conditions written in the special waste permit. If those special handling conditions are not met, this violation may be paired with Violation 8300 (mishandling of special waste) and a V2 may be warranted.



**8210**

**Unauthorized waste accepted**

**Citation Reference:** 0400-11-01-.04(2)(k)1

Waste Restrictions - A facility may receive for disposal only those solid wastes it is allowed to manage under the terms of its permit.

**Citation Reference:** 0400-11-01-.04(2)(k)6

Waste Restrictions - Ash generated from municipal solid waste combustion (MSWC), may only be disposed of in a unit meeting all applicable standards for a Class II disposal facility, including a liner system and a leachate collection system. Such a unit may be located at a Class I facility.

**Inspector Guidance (8210)**

Permitted Class I wastes are specified in individual permits. If a facility is accepting wastes that have not been approved in the facility permit (e.g., liquid wastes, whole tires, properly controlled medical waste, radioactive wastes), then a violation should be cited. Refer to permit and special waste approvals. If approved in individual permit, ash from MSWC can be accepted. Refer to individual permit for any questionable waste acceptance practices.

**8220**

**Unapproved special waste accepted**

**Citation Reference:** 0400-11-01-.01(4)(b)

General Requirement - Except as may be specifically allowed in the permit, an operator may not accept for processing or disposal at his facility any special waste unless and until specifically approved to do so in writing by the Department. Facilities shall not process or dispose of special waste for which approval by the Department has expired. Special waste generators shall not send off-site to processing or disposal facilities special waste for which approval by the Department has expired, unless the facility has specific authority in the permit to accept such waste.

**Citation Reference:** 0400-11-01-.01(4)(c)5

Procedures - Landfills and/or waste processing facilities shall not accept a special waste at their facilities without the written, special waste approval from the Department unless the waste is specifically authorized in the facility permit.

### Inspector Guidance (8220)

Class I facilities are issued special waste approvals for individual waste streams that, by regulatory definition, are either difficult or dangerous to manage. Some examples of these wastes include: sludges, bulky wastes, pesticide wastes, medical wastes, industrial wastes, hazardous wastes, which are not subject to hazardous waste regulations, liquid wastes, friable asbestos wastes, and combustion wastes (see Special Waste Guidance [PN135](#)). Inspectors should be familiar with their site's approved special wastes. If a waste is in question at time of inspection, the inspector may confirm the approval of that special waste stream. If such a waste is observed at the disposal area and not approved, a violation is to be cited.

**Violation Number:** 8230

8230

### Tires improperly handled

**Citation Reference:** 0400-11-01-.04(2)(k)3.(i)

Waste Restrictions - Discarded Tires - No landfill shall accept for disposal any whole tires.

### Inspector Guidance (8230)

Some discretion on the part of the inspector is required here; however, a violation is warranted only when whole tires are on the working face without an observable system of sorting and removing tires as described in the facility's individual permit. Previously, some leeway was given to removing observed whole tires from the working face due to safety concerns. If whole tires are observed, they should be removed if it can be done without creating undue safety issues.

**Violation Number:** 8240

8240

### Medical waste improperly handled

**Citation Reference:** 0400-11-01-.04(2)(k)4.(i-iv)

Waste Restrictions - Medical waste. - Sharps must be securely packaged in puncture-proof containers prior to landfilling.

Cultures and stocks of infectious agents and associated biologicals must not be landfilled unless and until they have been treated (e.g., autoclaved, incinerated) to render them non-infectious.

Human blood and blood products and other body fluids may not be landfilled. This restriction applies to bulk liquids or wastes containing substantive amounts of free liquids, but does not apply to simply blood contaminated materials such as emptied blood bags, bandages, or “dirty” linens.

Waste Restrictions - Medical waste. - Recognizable human organs and body parts may not be landfilled.

### Inspector Guidance (8240)

Medical wastes should be handled in accordance with the rules described above. If an observation, as described above is made then a violation should be cited. This violation is regarding the proper handling and disposal of commercial medical waste. Household medical waste is exempt from this rule so the observation must note obvious commercial waste. **Note: this violation is regarding the handling of medical waste and if a violation is cited is typically coupled with 8210. Refer to guidance ([PN016](#)).**

Violation Number: **8250**

**8250**

### Dead animals improperly handled

**Citation Reference:** 0400-11-01-.04(2)(k)5.(ii) (I-III)

Be disposed of in Class I disposal facilities only if managed as follows:

- (I) Dead animals must be covered upon receipt with a minimum of two feet of cover and placed in an area which will receive additional waste and cover within 48 hours; or covered with three feet of compacted cover soil if placed in an area which will not receive additional waste and cover within 48 hours.
- (II) Dead animals must not be disposed of in an area of a landfill which will not accommodate a minimum of five feet of depth from the finished landfill surface elevation when final cover has been put in place.
- (III) Dead animals must be distributed for disposal over the landfill area in such a manner as to minimize the occurrences of future sinks and depressions in the final landfill cover caused by carcass decay.

### Inspector Guidance (8250)

Dead animal wastes should be handled in accordance with the rules described above. If an observation, as described above, is made then a violation should be cited. **Note: this violation is regarding the handling of dead animals and if a violation is cited is typically coupled with 8210.**

Violation Number: **8270**

**8270**

#### Washout of solid waste

**Citation Reference:** 0400-11-01-.04(2)(a)(3)

Overall Performance Standard - The facility must be located, designed, constructed, operated, maintained, closed, and cared for after closure in such a manner as to minimize to the extent practicable: The potential for releases of solid wastes, solid waste constituents, or other potentially harmful materials to the environment except in a manner authorized by state and local air pollution control, water pollution control, and/or waste management control agencies.

### Inspector Guidance (8270)

Regarding the overall performance standard, there should be no washing out of solid waste during weather events. An observance of waste being washed out should be cited as a violation.

Violation Number: **8280**

**8280**

#### No permanent benchmark

**Citation Reference:** 0400-11-01-.04(2)(o)

Permanent Benchmark - There must be installed on-site a permanent benchmark (e.g., a concrete marker) of known elevation.

### Inspector Guidance (8280)

The permanent benchmark is usually denoted in the permit plans. This benchmark, by rule, must be present and maintained.

**8290**

### Inadequate random inspection program

**Citation Reference:** 0400-11-01-.04(2)(s)

0400-11-01-.04(2)(s) - Random Inspection Program - The owner or operator of a permitted landfill must implement a program at the facility for detecting and preventing the disposal of regulated hazardous waste, unauthorized special waste, PCB's(>50 ppm), whole tires, lead-acid batteries, and liquid wastes. This program must include at a minimum:

1. Random inspection of five percent of the daily incoming loads.
2. Inspection of all suspicious loads.
3. Records of all inspections must be maintained in a bound notebook, and include the inspection date, vehicle identification, driver signature, identification of any unauthorized waste, disposition of any unauthorized waste, and facility inspector signature.
4. Training of facility personnel to recognize regulated hazardous waste.
5. Procedures for notifying the appropriate Division field office if an unauthorized waste is identified and left at the facility.

#### Inspector Guidance (8290)

Minimum requirements are listed above and in the rules. A random inspection program is also usually described in the facility's permit. This program should adhere to the facility's permit conditions and at a minimum the requirements above. If not, a violation should be cited.

**8300**

### Mishandling of special waste

**Citation Reference:** 0400-11-01-.04(d)1

Special Waste Approval Process - Conditional Approval - In his approval, the Commissioner shall specify those management conditions which he deems necessary to prevent or minimize potential adverse impacts to public health, and the environment in order to promote safe and efficient facility operation. Failure to meet the required management conditions is unlawful disposal under the Act.

### Inspector Guidance (8300)

Class I facilities are issued special waste approvals for individual waste streams that, by regulatory definition, are either difficult or dangerous to manage. Some examples of these wastes include: sludges, bulky wastes, pesticide wastes, medical wastes, industrial wastes, hazardous wastes which are not subject to hazardous waste regulations, liquid wastes, friable asbestos wastes, and combustion wastes (see Special Waste Guidance [PN135](#)). Special waste approvals usually specify special handling conditions for various types of waste. If a special waste is observed that is not being handled as required by their special waste approval conditions, a V2 should be issued.

Violation Number: **8310**

**0  
1  
3  
8**

#### Buffer zone standard violated

**Citation Reference:** 0400-11-01-.04(3)(a)

Buffer Zone Standards for Siting Landfills - Class I Disposal Facilities must be located, designed, constructed, operated, and maintained such that the fill areas are, at a minimum:

1. 100 feet from all property lines;
2. 500 feet from all residences, unless the owner of the residential property agrees in writing to a shorter distance;
3. 500 feet from all wells determined to be downgradient and used as a source of drinking water by humans or livestock; and
4. 200 feet from the normal boundaries of springs, streams, lakes, (except that this standard shall not apply to any wet weather conveyance nor to bodies of water constructed and designed to be a part of the facility),
5. A total site buffer with no constructed appurtenances within 50 feet of the property line.

### Inspector Guidance (8310)

Buffer Zone Standard minimums are stated in the rules above, but all questions regarding buffer requirements should be checked according to the facility's permit conditions. In consultation with the DSWM engineer, if reasonable questions arise regarding a buffer zone standard, the latest survey can be requested. A survey request may need to be made to check permitted buffer zone standards.

**Inadequate maintenance of leachate management system**

**Citation Reference:** 0400-11-01-.04(2)(a)(3)

**Overall Performance Standard** - The facility must be located, designed, constructed, operated, maintained, closed, and cared for after closure in such a manner as to minimize to the extent practicable: The potential for releases of solid wastes, solid waste constituents, or other potentially harmful materials to the environment except in a manner authorized by state and local air pollution control, water pollution control, and/or waste management control agencies.

**Citation Reference:** 0400-11-01-.04(4)(a)7

**Class I Disposal Facilities** - The leachate collection and removal system must, at a minimum, meet the following requirements:

- (i) The leachate collection and removal system must be designed, constructed, operated, and maintained such that the leachate depth over the liner does not exceed one foot as calculated referencing the infiltration volume of the 25-year 24-hour storm through the intermediate cover.
- (ii) Leachate interception surfaces and associated piping must be designed, constructed, operated, and maintained to function without clogging throughout the scheduled post-closure care period;
- (iii) Leachate collection reservoirs must:
  - I. Be constructed (e.g., lined) such that collected leachate is contained;
  - II. Have sufficient capacity to store the volume of leachate expected to be generated in 30 days, or other adequate provisions approved by the Commissioner; and
  - III. Have a reliable and convenient means of detecting the level of collected leachate in the reservoir and of sampling such leachate.

## Inspector Guidance (8320)

This violation will typically accompany another violation involving leachate (e.g., 8330, 8340, 8350) since maintenance of leachate equipment is often the likely cause of leachate problems. Equipment (e.g., leachate pumps, pipes, tanks, sump monitors, etc.) should be checked regularly. This violation is centered on maintenance. Maintenance requirements may be spelled out in the individual permit. If questions arise, the DSWM engineer can be consulted.

The following needs to be checked:

1. Records that show cleaning of leachate collection piping;
2. Records for the generation, storage, treatment, and disposal of leachate (if the records indicate there is not sufficient capacity to store the volume of leachate expected to be generated in 30 days, or other adequate provisions approved in the permit, then it is a V1 violation).
3. The level of leachate in each sump (if level indicates that leachate is greater than 1 foot above the liner or if there is no way to make this determination, then it is a V1 violation);
4. Leachate tanks or reservoirs have no observed or detected leakage (if a leak is observed, then it is likely a significant violation [V2]);
5. Integrity checks of secondary containment for tanks and load-out areas if required by the permit.

Violation Number: **8330**

8330

### Leachate improperly managed

**Citation Reference:** 0400-11-01-.04(4)(a)8(i-iii)

Class I Disposal Facilities - Collected leachate:

- (i) Must be managed in accordance with any other applicable state and local regulations; and
- (ii) Must be sampled and analyzed, at least annually for Appendix I constituents, or for those ground water monitoring parameters listed in the permit, using sampling and analysis procedures as found in the facility permit. All leachate analysis results with all pertinent supporting data must be reported to the Commissioner with the next semi-annual ground water analysis report.
- (iii) Nothing in this rule shall prohibit the recirculation of leachate through the emplaced waste provided that the requirements of this Chapter are met.



## Inspector Guidance (8330)

This violation centers on the management of leachate associated with post-pumping activity. This is leachate that has been collected. Individual permits describe leachate management requirements. Records of leachate production and disposal should be checked regularly. As the rules stipulate above leachate should be managed as described in the permit and sampled/analyzed annually. A V1 violation can be cited if these requirements are not met. A V2 violation can be cited if V1 violation isn't corrected or leachate is being released from holding tank(s)/impoundment(s) into the environment. *See 8320 above for a relevant list of items that must be checked on inspection.*

Violation Number: **8340**

**8340**

### Inadequate leachate collection system

**Citation Reference:** 0400-11-01-.04(4)(a)7

Class I Disposal Facilities - The leachate collection and removal system must, at a minimum, meet the following requirements:

- (i) The leachate collection and removal system must be designed, constructed, operated, and maintained such that the leachate depth over the liner does not exceed one foot as calculated referencing the infiltration volume of the 25-year 24-hour storm through the intermediate cover.
- (ii) Leachate interception surfaces and associated piping must be designed, constructed, operated, and maintained to function without clogging throughout the scheduled post-closure care period;
- (iii) Leachate collection reservoirs must:
  - (I) Be constructed (e.g., lined) such that collected leachate is contained;
  - (II) Have sufficient capacity to store the volume of leachate expected to be generated in 30 days, or other adequate provisions approved by the Commissioner; and
  - (III) Have a reliable and convenient means of detecting the level of collected leachate in the reservoir and of sampling such leachate.

## Inspector Guidance (8340)

This violation will typically be instigated by continued and/or repeated leachate violations, which indicates an inadequate leachate collection system. If repeated leachate issues remain, a consultation with the permit and/or DSWM engineer may be needed. A V1 violation should be cited if the conditions of the facility's permit are not met regarding the leachate collection system or at the very least the minimum requirements above in the rules. *See 8320 above for a relevant list of items that must be checked on inspection.*

**Leachate observed at the site****Citation Reference:** 0400-11-01-.04(2)(a)(3)

**Overall Performance Standard** - The facility must be located, designed, constructed, operated, maintained, closed, and cared for after closure in such a manner as to minimize to the extent practicable: The potential for releases of solid wastes, solid waste constituents, or other potentially harmful materials to the environment except in a manner authorized by state and local air pollution control, water pollution control, and/or waste management control agencies.

**Citation Reference:** 0400-11-01-.04(4)(a)6,

**Class I Disposal Facilities** - Such facilities must be designed, constructed, operated, and maintained such that the final cover includes a cap which will:

- (i) Provide long-term minimization of migration of liquids through the closed facility;
- (ii) Function with minimum maintenance;
- (iii) Promote drainage;
- (iv) Accommodate settling and subsidence so that the cap's integrity is maintained; and
- (v) Meet the closure requirements of paragraph (8) of this rule.

### Inspector Guidance (8350)

This violation applies to active and closed areas. Leachate that is observed inside the cell area or on interior slopes that has **no** potential to leave the lined area typically would not require a violation to be cited. Continuous observations of large amounts of leachate may indicate a 8320 violation or maintenance problem. If **leachate** is observed on an **outside slope** (such as a seep or "damp spot") in the soil or vegetation, a V1 violation should be cited. If the DSWM has approved a facility plan that is in place for the facility to collect and remove the leachate from seep prior to leaving the lined area and a date for completed corrective action, then no violation should be cited.

**8360**

**Leachate entering run-off**

**Citation Reference:** 0400-11-01-.04(2)(a)(3)

**Overall Performance Standard** - The facility must be located, designed, constructed, operated, maintained, closed, and cared for after closure in such a manner as to minimize to the extent practicable: The potential for releases of solid wastes, solid waste constituents, or other potentially harmful materials to the environment except in a manner authorized by state and local air pollution control, water pollution control, and/or waste management control agencies.

**Citation Reference:** 0400-11-01-.04(4)(a)6,

**Class I Disposal Facilities** - Such facilities must be designed, constructed, operated, and maintained such that the final cover includes a cap which will:

- (i) Provide long-term minimization of migration of liquids through the closed facility;
- (ii) Function with minimum maintenance;
- (iii) Promote drainage;
- (iv) Accommodate settling and subsidence so that the cap's integrity is maintained; and
- (v) Meet the closure requirements of paragraph (8) of this rule.

**Inspector Guidance (8360)**

Leachate that enters runoff has a high potential for harm to the environment. It should usually be considered a V2 violation, but at the inspector's discretion, it may be a V1 violation if the leachate volume is small, the runoff volume is small, precipitation is not expected in the near future, etc. In situations where leachate is being controlled (e.g., if it is captured in a ditch that is still on the liner before it gets to the sediment basin), the inspector can initially mark it as an area of concern prior to citing a violation. A V2 should be cited if the leachate reaches any groundwater or surface water system such as a sediment basin as there is no way to capture the leachate at that point.

**8370**

**Leachate entering a water course**

**Citation Reference:** 0400-11-01-.04(2)(a)(3)

**Overall Performance Standard** - The facility must be located, designed, constructed, operated, maintained, closed, and cared for after closure in such a manner as to minimize to the extent practicable: The potential for releases of

solid wastes, solid waste constituents, or other potentially harmful materials to the environment except in a manner authorized by state and local air pollution control, water pollution control, and/or waste management control agencies.

**Citation Reference:** 0400-11-01-.04(4)(a)6

**Class I Disposal Facilities** - Such facilities must be designed, constructed, operated, and maintained such that the final cover includes a cap which will:

- (i) Provide long-term minimization of migration of liquids through the closed facility;
- (ii) Function with minimum maintenance;
- (iii) Promote drainage;
- (iv) Accommodate settling and subsidence so that the cap's integrity is maintained; and
- (v) Meet the closure requirements of paragraph (8) of this rule.

### Inspector Guidance (8370)

If leachate is observed entering surface water or likely groundwater (waters of the state), then a V2 violation should automatically be cited. There should be no V1s cited for this violation. **In addition, normally a plan to conduct sampling of the body of water and/or coordination of an investigation with the DWR should be implemented. A violation could result in additional action from other state and Federal agencies (e.g., Division of Water Resources or the Army Corps of Engineers).**

**Violation Number: 8380**



### Inadequate gas migration control system

**Citation Reference:** 0400-11-01-.04(5)(a)

Gas Migration Control Standards - Class I Disposal Facilities must be designed, constructed, operated, and maintained such that any gases generated by decomposition or other reaction of solid waste are collected and vented, recovered, or otherwise managed such that:

1. There is no buildup of gas pressure under the final cover such that the functions of such cover (including any cap) are compromised;
2. The concentration of explosive gases in facility structures (excluding gas control or recovery system components) does not exceed 25 percent of the lower explosive limit for the gases;
3. The concentration of explosive gases at the property boundary does not exceed the lower explosive limit for the gases.

4. The minimum frequency of monitoring shall be quarterly and the operator shall keep records to comply with the monitoring and records requirements at part (5)(a)9 of Rule 0400-11-01-.02; and monitoring shall include at least the following locations:
  - (i) Underneath or in the low area of each on-site building;
  - (ii) At locations along the boundary as shown in the permit;
  - (iii) At any potential gas problem areas, as revealed by dead vegetation or other indicators; and
  - (iv) At any other points required by the permit.
5. Within 60 days of detection above the limits set in parts 1, 2, and 3 of this subparagraph, implement a Department approved remediation plan for the methane gas releases. Pending the remediation, the owner/operator must take all necessary steps to ensure immediate protection of human health.

### Inspector Guidance (8380)

Individual permits should require specific gas migration control system conditions. However, at a minimum, the rules above (Gas Migration Control Standards) require no buildup of gas pressure under the final cover system, exceeding the lower explosive (LEL) limits at the property boundary, and quarterly gas monitoring. Typically, quarterly gas monitoring documents are submitted to each environmental field office to be reviewed by the permit-writer/engineer. If quarterly documents are not being submitted, then require facility to start submitting these documents. If quarterly gas monitoring documents have not been submitted to the field office or are not available at the facility, a V1 should be cited; if these quarterly gas monitoring documents can't be produced at all, a V2 should be cited.

Potential gas problem areas can be revealed by dead vegetation or odor. If gas problem areas have been identified, action is required that adheres to the rules cited above. Violations, at this point, would be cited if monitoring isn't implemented. DSWM does not regulate odors; however, this may indicate the gas collection system (if present) needs evaluation/repair/adjustment. If the problem areas mentioned above are outside the disposal area, a different course of action is needed compared to if the problems are within the disposal area.

**Violation Number: 8390**

**0638  
8390**

### Inadequate maintenance of gas migration control system

**Citation Reference:** 0400-11-01-.04(5)(a)

Gas Migration Control Standards - Class I Disposal Facilities must be designed, constructed, operated, and maintained such that any gases generated by

decomposition or other reaction of solid waste are collected and vented, recovered, or otherwise managed such that:

1. There is no buildup of gas pressure under the final cover such that the functions of such cover (including any cap) are compromised;
2. The concentration of explosive gases in facility structures (excluding gas control or recovery system components) does not exceed 25 percent of the lower explosive limit for the gases;
3. The concentration of explosive gases at the property boundary does not exceed the lower explosive limit for the gases.
4. The minimum frequency of monitoring shall be quarterly and the operator shall keep records to comply with the monitoring and records requirements at part (5)(a)9 of Rule 0400-11-01-.02; and monitoring shall include at least the following locations:
  - (i) Underneath or in the low area of each on-site building;
  - (ii) At locations along the boundary as shown in the permit;
  - (iii) At any potential gas problem areas, as revealed by dead vegetation or other indicators; and
  - (iv) At any other points required by the permit.
5. Within 60 days of detection above the limits set in parts 1, 2, and 3 of this subparagraph, implement a Department approved remediation plan for the methane gas releases. Pending the remediation, the owner/operator must take all necessary steps to ensure immediate protection of human health.

### Inspector Guidance (8390)

In the case of above-ground components of the gas migration control system, the walkover inspection should reveal leaking joints, line breaks, bubbling low points, an indication of major pressure differentials (e.g., liners bubbling up), line displacement due to thermal expansion, etc., that need repairing. If any identification of these problems is observed, a V1 violation should be cited.

**Violation Number: 8420**

**8420**

### Potential for explosions or uncontrolled fires

**Citation Reference:** 0400-11-01-.04(2)(a)2

Overall Performance Standard - The facility must be located, designed, constructed, operated, maintained, closed, and cared for after closure in such a manner as to minimize to the extent practicable:

## 2. The potential for explosions or uncontrolled fires.

### **Citation Reference:** 0400-11-01-.04(5)(a)

Gas Migration Control Standards - Class I Disposal Facilities must be designed, constructed, operated, and maintained such that any gases generated by decomposition or other reaction of solid waste are collected and vented, recovered, or otherwise managed such that:

1. There is no buildup of gas pressure under the final cover such that the functions of such cover (including any cap) are compromised;
2. The concentration of explosive gases in facility structures (excluding gas control or recovery system components) does not exceed 25 percent of the lower explosive limit for the gases;
3. The concentration of explosive gases at the property boundary does not exceed the lower explosive limit for the gases.
4. The minimum frequency of monitoring shall be quarterly and the operator shall keep records to comply with the monitoring and records requirements at part (5)(a)9 of Rule 0400-11-01-.02; and monitoring shall include at least the following locations:
  - (i) Underneath or in the low area of each on-site building;
  - (ii) At locations along the boundary as shown in the permit;
  - (iii) At any potential gas problem areas, as revealed by dead vegetation or other indicators; and
  - (iv) At any other points required by the permit.
5. Within 60 days of detection above the limits set in parts 1, 2, and 3 of this subparagraph, implement a Department approved remediation plan for the methane gas releases. Pending the remediation, the owner/operator must take all necessary steps to ensure immediate protection of human health.

### **Inspector Guidance (8420)**

Generally, but not always, potential for explosions would be associated with the accumulation of landfill gas in confined situations such as within a structure. Quarterly monitoring and record keeping is required, at a minimum, at specified locations because of this potential problem. Potential for uncontrolled fires may occur is when a "hot" load is inadvertently off-loaded at the working face. If not caught early, this may develop into a serious predicament. Careful monitoring by the operator should usually prevent this. Another very rare possibility is the occurrence of spontaneous combustion. In these last two situations, smothering the affected area with a solid layer of soil should control and extinguish the fire. Depending on the severity of the observation an appropriate violation (V1 or V2) should be cited and **immediate** action should take place for correction.

**8430**

**Waste not confined to a manageable area**

**Citation Reference:** 0400-11-01-.04(6)(a)1

Waste Handling and Cover Standards - Class I Disposal Facilities - The unloading of solid wastes at the disposal area must be confined to the smallest practicable area, and must be supervised by trained facility personnel to ensure safety and compliance with waste restriction requirements.

**Inspector Guidance (8430)**

At Class I disposal facilities, the unloading of solid wastes at the disposal area (working face) must be confined to the smallest practicable area, and must be supervised by trained facility personnel to ensure safety and compliance with waste restriction requirements. The smallest practicable area can be determined by considering the area that could be covered at the end of the day by the landfill operator. If the working face is larger than an area that can practicably be covered at the end of the day, a V1 should be cited. Also may consider the size needed to accommodate normal daily waste receipt and traffic. Normally, operational costs will keep the size to a minimum.

**8440**

**Improper spreading of waste**

**Citation Reference:** 0400-11-01-.04(6)(a)2

Waste Handling and Cover Standards - Class I Disposal Facilities - Promptly upon unloading, solid wastes (except in the case of solid waste balefills or other instances specifically approved in writing by the Commissioner) shall be spread in shallow (less than three-foot) layers and compacted with appropriate equipment to the maximum practicable density. Special wastes must be handled as specified either in the permit or in the special waste approval granted by the Commissioner.

**Inspector Guidance (8440)**

As described in the above citation, when waste is unloaded at the working face(s), unless otherwise permitted, it should be spread out in three-foot layers and compacted before additional waste is unloaded. Unloading too much waste at one time can result in improper spreading and impede with the operator's ability to achieve a maximum practicable density. A V1 violation should be cited if waste is spread in lifts that are clearly thicker than three-foot prior to compaction.



**8450**

### Improper compacting of waste

**Citation Reference:** 0400-11-01-.04(6)(a)2

Waste Handling and Cover Standards - Class I Disposal Facilities - Promptly upon unloading, solid wastes (except in the case of solid waste balefills or other instances specifically approved in writing by the Commissioner) shall be spread in shallow (less than three-foot) layers and compacted with appropriate equipment to the maximum practicable density. Special wastes must be handled as specified either in the permit or in the special waste approval granted by the Commissioner.

#### Inspector Guidance (8450)

Compaction should be at a maximum practicable density. Maximum practicable density can generally be determined if the compactor is operating on top of the waste and not **in** the waste. "Loose mounds" of garbage at the end of the working day should not be allowed. A V1 should be cited if improper compaction is observed. It is TDEC's expectation that proper compaction equipment should be used to achieve maximum practicable density for compaction. However, if other equipment can be demonstrated to achieve maximum practicable density, facilities will be required to show that demonstration formally.

**8460**

### Unsatisfactory initial cover

**Citation Reference:** 0400-11-01-.04(6)(a)3

Waste Handling and Cover Standards - Class I Disposal Facilities - The compacted solid waste must be covered at the end of each operating day with an initial cover consisting of at least a six inch layer of compacted soil or an adequate standard of other material as approved by the Commissioner.

Waste Handling and Cover Standards - Class I Disposal Facilities - All initial and intermediate cover depths must be maintained until either additional wastes are placed over the area or final cover is applied.

## Inspector Guidance (8460)

At Class I disposal facilities, the compacted solid waste must be covered at the end of each operating day with an initial cover consisting of a six inch layer of compacted soil or an adequate standard of other material (e.g., alternate daily cover [ADC]) as approved by the Commissioner. The *compacted* six inch daily cover soil required at the end of the working day at Class I facilities is intended to provide a barrier against vectors that may try to invade the buried waste. It also provides a means to minimize blowing litter and surface water infiltration. In addition, it provides a barrier against fires that may occur in the waste. The six inch soil depth is a minimum, not an average, so that the daily cover should wind up being well over six inches in many areas of the daily cell. The surface should be sloped according to the plans and permit operating manual so that rainfall moves off the area rather than percolates into it. Alternative daily cover (e.g., tarps, shredder fluff) may be approved but should be clearly stated and approved within the permit or by the Commissioner in writing. It is good inspector practice to periodically conduct an inspection at the beginning or end of the working day to verify all waste is actually being covered. "Compaction", as used in this context above, means a surface seal compaction and can usually be accomplished with tracked equipment.

## Violation Number: 8470

8470

### Unsatisfactory intermediate cover

**Citation Reference:** 0400-11-01-.04(6)(a)4, 0400-11-01-.04(6)(a)5

Waste Handling and Cover Standards - Class I Disposal Facilities - Except for those completed portions to be finally closed (e.g., the final lift), all surfaces which will be left exposed for a period of over thirty days (e.g., initial and intermediate lifts) must be covered by an intermediate cover consisting of at least a one-foot layer of compacted soil or other material approved by the Commissioner.

**Citation Reference:** 0400-11-01-.04(6)(a)5

Waste Handling and Cover Standards - Class I Disposal Facilities - All initial and intermediate cover depths must be maintained until either additional wastes are placed over the area or final cover is applied.

## Inspector Guidance (8470)

At Class I disposal facilities, except for those completed portions to be finally closed (e.g., the final lift), all surfaces which will be left exposed for a period of over thirty days (e.g., initial and intermediate lifts) must be covered by an intermediate cover consisting of at least a one-foot layer of compacted soil or other material approved by the Commissioner. Intermediate cover (for surfaces left exposed for over thirty days) is intended to provide an extra measure of protection. This thickness allows for a certain loss of cover material due to erosion or other forces. However, remember the operator must take other erosion control measures (e.g., temporary mulching or seeding) as necessary to control erosion of the site so intermediate cover should not be left unstabilized for long periods of time (see 8510 and 8180). Large unvegetated areas for long periods of time should be avoided. Intermediate cover must be maintained to provide the same protection throughout the period until more waste is added or final cover is applied. No "flagging" (areas where waste is showing in various places in the cover dirt) should be observed in intermediate cover areas. If intermediate cover does not meet the standards in their permit or rules above, a V1 violation should be cited. More clarification on erosion and sediment control practices will be found in a future developed Guidance for Controlling Erosion at Operational Areas of a Landfill.

Violation Number: **8480**

**8480**

### Unsatisfactory final cover

**Citation Reference:** 0400-11-01-.04 (2)(a)3

Overall Performance Standard - The facility must be located, designed, constructed, operated, maintained, closed, and cared for after closure in such a manner as to minimize to the extent practicable the potential for releases of solid wastes, solid waste constituents, or other potentially harmful materials to the environment except in a manner authorized by state and local air pollution control, water pollution control, and/or waste management control agencies

**Citation Reference:** 0400-11-01-.04(8)(c)4(iii)

Closure and Post-Closure Standards - Closure Requirements - The final surface of the disposal facility or disposal facility parcel shall be graded and/or provided with drainage facilities in a manner that optimizes drainage of precipitation falling on the disposal facility or disposal facility parcel (e.g., prevent pooling).

## Inspector guidance (8480)

Final cover construction is detailed in the permit plans and closure/post closure plan for each individual site. If final cover shows significant evidence of dead vegetation, erosion, or if garbage is exposed (only for those facilities that do not have geomembranes), a violation should be cited and the engineer/permit-writer should be consulted following the inspection. More clarification on erosion and sediment control practices will be found in a future developed Guidance for Controlling Erosion at Operational Areas of a Landfill.

**8490**

**Excessive pooling of water**

**Citation Reference:** 0400-11-01-.04 (2)(a)3

Overall Performance Standard - The facility must be located, designed, constructed, operated, maintained, closed, and cared for after closure in such a manner as to minimize to the extent practicable the potential for releases of solid wastes, solid waste constituents, or other potentially harmful materials to the environment except in a manner authorized by state and local air pollution control, water pollution control, and/or waste management control agencies.

**Citation Reference:** 0400-11-01-.04(8)(c)4(iii)

Closure and Post-Closure Standards - Closure Requirements - The final surface of the disposal facility or disposal facility parcel shall be graded and/or provided with drainage facilities in a manner that optimizes drainage of precipitation falling on the disposal facility or disposal facility parcel (e.g., prevent pooling).

**Inspector Guidance (8490)**

Excessive pooling of water on the landfill surface promotes the generation of leachate due to infiltration of that pooled water into the buried waste. It can also create mosquito breeding areas if not addressed in a timely manner. In some cases, depending on the location, it can interfere with the access to the working face, and the unloading, spreading, compaction, and covering of the waste. Excessive water can generally be described as a pool that has been in an area for longer than 48 hours. This usually excludes water pooling in equipment tracks. A V1 violation should be cited if any pooling is excessive. A V2 violation can follow if repeatedly not addressed or corrected.

**8510**

**Unsatisfactory stabilization of cover**

**Citation reference:** 0400-11-01-.04(6)(a)5,6

All initial and intermediate cover depths must be maintained until either additional wastes are placed over the area or final cover is applied.

Upon achieving final grade or as otherwise required by the Commissioner, final cover shall be placed as set forth in the closure standards of paragraph (8) of this rule.

### Inspector Guidance (8510)

Cover must be stabilized in some fashion to prevent the loss of cover. That can mean initial, intermediate, and final cover. More clarification on stabilization practices will be found in a future developed Guidance for Controlling Erosion at Operational Areas of a Landfill.

Violation Number: **8520**

**8520**

#### Dumping of waste into water

**Citation Reference:** 0400-11-01-.04 (2)(a)3

Overall Performance Standard - The facility must be located, designed, constructed, operated, maintained, closed, and cared for after closure in such a manner as to minimize to the extent practicable the potential for releases of solid wastes, solid waste constituents, or other potentially harmful materials to the environment, except in a manner authorized by state and local air pollution control, water pollution control, and/or waste management control agencies.

### Inspector Guidance (8520)

This violation could be cited on rare occasions. Historically, this violation has been interpreted by the DSWM to mean no dumping of waste into water at the landfill site (and not interpreted as dumping into waters of the state as that is a direct violation of the Clean Water Act, which we do not regulate). However, with new landfill standards for leachate management, this is less of an issue as it relates to the overall performance standard. A rare example of this violation would be if a new cell construction is holding water and the leachate management system has not been tested for that cell to drain effectively, then waste should not be placed in collected water of a new cell until drained and properly tested for leachate collection.

Violation Number: **8530**

**8530**

#### Unsatisfactory records or reports

**Citation Reference:** 0400-11-01-.02(4)(a)7

Duty to Provide Information - The permittee must furnish to the Commissioner, within a reasonable time, any information which the Commissioner may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee must also furnish to the Commissioner, upon request, copies of records required to be kept by this permit. All records, including a copy of the permit and the approved Part I and Part II application,

must be maintained at the facility or other locations as approved by the Commissioner.

**Citation Reference:** TCA 68-211-862(a)

Records of amount of solid waste received at disposal facilities and incinerators - The owner or operator of each Class I municipal solid waste disposal facility or incinerator shall be responsible for keeping an accurate written record of all amounts of solid waste, measured in tons, received at the facility.

**Citation Reference:** 0400-11-01-.04(7)(a)4(vii)

The operator must keep records of all ground water sampling activities conducted, the sample analysis results, and the associated ground water surface elevation throughout the active life of the facility and throughout the post-closure care period as well. Such records must be kept at the facility or at some other location within Tennessee as specified in the permit.

**Citation Reference:** 0400-11-01-.04(2)(k)3(i)(II)VI

Tires or shredded tires may not be stored for more than one (1) year without the written approval of the Division. The operator shall maintain records sufficient to establish the date each tire pile within a storage area was begun.

**Citation Reference:** 0400-11-01-.04(2)(s)

Random Inspection Program - The owner or operator of a permitted landfill must implement a program at the facility for detecting and preventing the disposal of regulated hazardous waste, unauthorized special waste, PCBs (>50 ppm), whole tires, lead-acid batteries, and liquid wastes. This program must include at a minimum:

1. Random inspection of five percent of the daily incoming loads.
2. Inspection of all suspicious loads.
3. Records of all inspections must be maintained in a bound notebook, and include inspection date, vehicle identification, driver signature, identification of any unauthorized waste, disposition of any unauthorized waste, and facility inspector signature.
4. Training of facility personnel to recognize regulated hazardous waste.
5. Procedures for notifying the appropriate Division field office if an unauthorized waste is identified and left at the facility.

**Citation Reference:** 0400-11-01-.01(4)(d)2

The Commissioner may require the operator to keep records on the receipt and management of certain special wastes. The operator shall keep copies of special waste approvals by the Department which the facility has accepted into the landfill and all recertifications submitted by generators of such waste.

**Citation Reference:** 0400-11-01-.02(3)(a)4

Operators shall keep records of all data and supplemental information used to complete permit applications until the end of the post-closure care period.

**Citation Reference:** 0400-11-01-.02(5)(a)4

The minimum frequency of monitoring shall be quarterly and the operator shall keep records to comply with the monitoring and records requirements at part (5)(a)9 of Rule 0400-11-01-.02; and monitoring shall include at least the following locations:

- (i) Underneath or in the low area of each on-site building;
- (ii) At locations along the boundary as shown in the permit;
- (iii) At any potential gas problem areas, as revealed by dead vegetation or other indicators; and
- (iv) At any other points required by the permit.

**Citation Reference:** 0400-11-01-.08(3)

Records - The owner/operators of all municipal solid waste disposal facilities or incinerators shall maintain written records of waste received in tons. All records for the current month shall be maintained at the facility and open for inspection by the Department during normal operating hours. All other records shall be maintained at suitable office space in order that they may be protected from damage or loss. These records shall also be open for inspection during normal working hours. The maintenance site for these records shall be designated on the date of the first payment to the Department. Any change in location shall be designated on the payment to the fund. Records shall be maintained for three years. In the event that records are damaged or destroyed, the amount of waste received for that month or quarter shall be based on the maximum day on record multiplied by the number of working days in the month or quarter. Records shall be maintained on a daily basis organized by month. Waste shall be measured at the gate on a vehicle by vehicle basis. Each facility must use a standard reporting form provided by the Department.

### Inspector Guidance (8530)

Each inspection may include a complete records review. Policy Guidance ([PN072](#)) lists all the records that must be available and current. Violation of this item has potential for harm to human health and the environment and must be cited on the inspection form. A V1 violation can be cited if records are not in accordance to rules or specific permit. If records cannot be produced in a 24-hour period, a V2 should be cited.

Violation Number: **8540**

**8540**

#### Groundwater monitoring system improperly maintained

**Citation Reference:** 0400-11-01-.04(7)(a)3(ii)

Ground Water Protection/Monitoring Standards - Monitoring System for New and Existing Facilities - All monitoring wells must be cased in a manner that maintains the integrity of the monitoring well bore hole. This casing must be fitted with a screened interval, with inert gravel or sand and packed around the screen as necessary, to enable collection of ground water samples at depths where appropriate flow zones exist. The annular space (i.e., the space between the bore hole and the well casing) above the sampling depth must be sealed with a suitable material (e.g., cement grout or bentonite slurry) to prevent contamination of samples and the ground water and to prevent the loss of the volatile gases.

### Inspector Guidance (8540)

Monitoring wells should not be damaged and should be locked. If questions arise about groundwater monitoring system, inspectors should consult with the DSWM geologist for guidance. A V1 violation should be cited if wells are not locked or maintained.

Violation Number: **8570**

**8570**

#### Operation does not correspond with engineering plans

**Citation Reference:** TCA 68-211-104(3), TCA 68-211-105(b)

Unlawful methods of disposal - It is unlawful to construct, alter, or operate a solid waste processing or disposal facility or site in violation of the rules, regulations, or orders of the commissioner or in such a manner as to create a public nuisance.



No new construction shall be initiated nor shall any change be made in any solid waste processing facility or disposal facility or site until the plans for such new construction or change have been submitted to and approved by the Department.

### Inspector Guidance (8570)

Inspectors should be familiar with landfill plans and operating manual. Inspectors should understand that each permit may state conditions that may not be declared elsewhere. Those conditions need to be reviewed and understood. Any engineering questions regarding this violation should warrant a consultation with the DSWM engineer.

Violation Number: **8580**

**8580**

### Operation does not correspond with permit condition(s)

**Citation Reference:** TCA 68-211-104(3)

Unlawful methods of disposal - It is unlawful to construct, alter, or operate a solid waste processing or disposal facility or site in violation of the rules, regulations, or orders of the commissioner or in such a manner as to create a public nuisance.

**Citation Reference:** 0400-11-01-.02(5)(a)(1)

Duty to Comply - The permittee must comply with all conditions of this permit-by-rule, unless otherwise authorized by the Department in writing. Any permit-by-rule noncompliance constitutes a violation of the Act and is grounds for the assessment of civil penalties by the Commissioner.

### Inspector Guidance (8580)

The permit may state conditions that may not be declared elsewhere. These conditions must be reviewed and understood by the inspector and operator. Consultation with DSWM permit writer may be warranted.